

Hawaiian Islands.

Year.	Acres.	Tons of Sugar.	Yield per Acre, Lbs.
1895	47,399.5	153,419.5	6,472
1896	55,729.	227,093.	8,148
1897	53,825.5	251,126.	9,331
1898	53,235.5	229,414.	8,306
1899	60,308.	282,807.	9,378
1900	63,816.	289,544.	9,074
1901	78,618.5	359,133.	9,136
1902	80,954.	353,950.	8,744
1903	93,350.	438,054.	9,385
1904	91,797.60	367,405.07	8,005
1905	95,443.51	427,365.68	8,955
1906	96,229.6	430,368.2	8,945
1907	99,916.	440,934.16	8,826

In considering at the present time the tremendous increase in production shown by the above figures, it is interesting to note some of the remarks or predictions made in the early days as to the possible output of sugar in the Hawaiian Islands. In 1882 the following statements and estimates were made up by "gentlemen thoroughly conversant with the subject, and are reliable:"

Name of Island.	Acres of Cane Land	Acres Annually Cropped	Annual Yield of Sugar in Tons
	Present Possible.	Present Possible.	Present Possible.
Hawaii	30,000 40,000	12,000 18,000	29,000 40,000
MauI	12,000 14,000	6,000 7,500	15,500 25,000
Oahu	3,000 3,500	1,500 2,000	3,000 4,000
Kauai	10,000 15,000	4,000 6,500	9,500 15,000
Total	55,000 72,500	23,500 34,000	57,000 84,000

Former Ideas of Limit of Production.

In 1883 we find the following "reliable" statement in reference to the limit of production in the Hawaiian Islands:

"From an estimate which we have obtained from a most reliable source, the Hawaiian Islands have only about 100,000 acres which can be termed sugar lands; but even of such lands we cannot make full use, either on account of our scanty water supply or on account of location. On the island of Hawaii for instance, though as far as soil is concerned there are some tracts of land which to the uninitiated seem admirably fitted for cane, they are useless; if over 1000 feet above the sea level they will yield a crop in 30 months, and few men are bold enough to face such a lengthy period before they get any return for their money and work, let alone the ordinary risks which a planter is exposed to. On the same island, as a rule, to plant cane below 400 feet from the sea level is dangerous on account of the drought. Thus on our island, the one offering the broadest tracts of land for cane cultivation, the area where this industry can be successfully carried on is considerably narrowed by mere position.

"At the present time we have 40,000 acres under cultivation for cane; and of this about 26,000 acres are cropped each year. Could we, which is as far as we understand practically impossible, but for the sake of argument we may say, could we cultivate the whole 100,000 acres we could not crop more than 52,000 acres each year. Now from last year's crop of 26,000, there were produced 56,000 tons of sugar, or about two and one-sixth tons to the acre, taking things by and large throughout the group. A great deal of nonsense is written about the productiveness of our soil; true that in some exceptionally favored spots, rich valley bottoms, and even then only for the first crop planted, as much as five or six tons to the acre have been obtained; but such places are exceptional, and the statistics of the yield of 1882 conclusively prove that the average yield of the cane lands in these islands is very little better than it is anywhere else. The very utmost, then, that we could get from our sugar lands would be about 100,000 tons a year. Practically we can never obtain any such crop for though the land may be there the elevation and the lack of water are an insuperable barrier to our making use of them. As a fact Hawaii has very nearly reached her limit of production, and what she produces is not a drop in the bucket when compared with what the United States consume."

Even as late as 1893 it was authoritatively stated that the limit of production of the entire group was 150,000 tons.

Prediction of 1899.

In view of all these predictions it is somewhat of a relief to quote from a report by Dr. H. W. Wiley in 1899, who states: "From the most reliable information accessible it may be said that under the stimulus of American enterprise the Hawaiian Islands will produce for export to the United States about 500,000 tons of sugar in 1910," the total production of the Islands then being 282,807 tons.

For general statement of development as compiled by the Bureau of Census, 1900, see Bulletin No. 169 of the 12th Census of the United States issued May, 1902.

Causes that Developed Industry.

Causes of Increase. The great development of the sugar industry of Hawaii since 1876 is due to a great many causes, of which the following are the principal factors:



Picturesque Sugar Cane Fields of the Pioneer Mill Company, Lahaina, Maui. Steam Plows Cannot Be Used Here owing to the Huge Rocks in the Soil.

FIRST, the granting by the United States of the reciprocity treaty of 1876 followed by annexation of the islands in 1898.

SECOND, improved machinery and improved methods in cultivation, including the use of fertilizers.

THIRD, irrigation; conservation of mountain water and the development of the artesian well supply.

FOURTH, the co-operation of the various plantation interests, both in the formation of an association of the planters and the organization of an experiment station.

Reciprocity.

Reciprocity Treaty. In 1855 a reciprocity treaty was negotiated by W. L. Marcy, Secretary of State for the United States and Judge Lee representing the Hawaiian government, but though the Committee on Foreign Affairs approved of it, the treaty failed of ratification in the Senate. Later, in 1867, the treaty was again ratified by the Hawaiian government and approved by President Johnson and W. L. Stewart, Secretary of State, only to fall once more of Senate approval. At last in January 1875 the United States entered into a treaty of

any other great power from acquiring a foothold in the islands, which might be adverse to the welfare and safety of the Pacific Coast in time of war.

Fear of Hindus.

From the report of the Committee on Foreign Relations of the United States Senate in 1894 is taken the following excerpt which contains the statement that one of the controlling considerations in making the treaty was that Hindus were to be imported into the islands to supply needed labor, which under British regulations would have meant a certain measure of British control of said laborers, and which might have led even further. The statement is as follows:

"The islands prior to the treaty were declining in population, and owing to the decay of the whale fishery, were declining in wealth. Their soil is, perhaps, the most productive for sugar raising of any known in the world. But the high tariff on sugar and the exceedingly low wages which must be paid in tropical countries for raising sugar to supply the United States rendered the industry difficult. In 1875 a movement arose in the islands for the importation of Hindoo coolies to supply the requisite cheap labor, and the consent of England was promised. The growth of the Australian colonies had gradually developed an improving market for Hawaiian sugar, and, after a trial of it by some of the Hawaiian planters, it was found that better prices could be obtained in the free-trade port of Sydney than in San Francisco, and return cargoes could be bought there much more cheaply.



Laborer's Homestead Cottage on Ewa Plantation, Island of Oahu.

commercial reciprocity with the Hawaiian Islands, which after some delay went into operation September 1876 and remained in force until annexation of the islands to the United States. By the terms of this treaty the leading agricultural products of Hawaii including rice and raw sugars, (known in San Francisco as "Sandwich Island Sugars") were admitted free into all ports of the United States; and nearly all the agricultural products and manufactures of the latter nation were admitted free into Hawaii for the term of seven years from the date at which it went into operation, and further, until twelve months notice of termination should be given by either of the contracting parties, after the end of said term of seven years.

The commercial advantages to the United States were considered but little in the granting of the treaty, political or state considerations being the controlling reasons. The measure was supported by both the Republicans and Democrats in Congress and was granted, so far as the United States was concerned, for the purpose of securing political control of the islands, and making them industrially and commercially a part of the United States, and preventing

Preparations were making for sending there the entire crops of 1876-77. These matters came to the knowledge of the Senate Department. The Hawaiians had been pressing for many years for a commercial treaty with the United States, but without success. It was now felt in the State Department that the question was assuming graver importance, and, as political supremacy in the islands must inevitably follow the commerce, it was recognized that this country must make favorable concessions to them, or else let them follow the inevitable tendency and drift slowly into the status of an English colony. The result was the negotiation of the existing treaty and its ratification by the consent of the Senate."

First Great Impetus.

The treaty of reciprocity gave Hawaii its first great impetus in trade and developed a tremendous activity in production, which has continued to the present day. The impetus which the treaty gave to the sugar business has produced results which were not anticipated, and which have been most far-reaching, both in the effect upon Hawaiian industry and trade and upon the industries and shipping of the mainland.

New life was infused into every branch of business in the islands, capital from the United States was attracted and invested, the population increased, the commerce of the United States developed to a remarkable degree, and the American influence in the islands increased and predominated to a very great extent.

America Profited.

As trade grew and prospered it was demonstrated that the balance was not all on the side of the Hawaiians. Hawaiian production (principally sugar and rice) as shown in the tables to follow, within a short time increased fourfold, while imports into Hawaii of the products and manufactures of the United States increased in almost a like ratio. A large number of vessels both sail and steam were built in the United States for trade between the States and the islands and also for inter-island trade. It was not long before a new line of steamers was established between San Francisco and Honolulu, and a line of sailing vessels between Honolulu and New York. The development of American shipping due entirely to the production of sugar is one of the remarkable and permanent results of the admission of Hawaiian sugars into the United States free of duty.

The development of the sugar mills and the improved machinery used by the plantations, nearly all of which has been obtained from the United States, has given large returns to American factories and has afforded employment to thousands of American mechanics and laborers.

To go into the details of the effects of the treaty and of annexation, upon all the various lines of business directly relating to the production of sugar would make this report too voluminous.

Trade of American Ships.

In 1886, during one of the periodical efforts made by mainland interests to obtain abrogation of the treaty, the situation was very well summed up by the United States Consul-General at Honolulu in a report to his Government, as follows:

"As the tables herewith given clearly show, the benefits of reciprocity do not all come to the people of the islands. The 200 ships which have cleared from this port during the year were built by American shipbuilders and are the property of American citizens. The loss of the treaty is a certain loss of the business of these vessels and a large per cent. of the capital invested in them. Two-thirds of the capital invested in plantations and the facilities for the production of sugar is the capital of Americans. Three-fourths of the money borrowed for the prosecution of the sugar business in the islands comes from American banks. All the immense investment in the two great refineries in San Francisco is American. Seventy-five per cent of the insurance on vessels and cargoes is placed in American companies. Three-fourths of all the imports into the Kingdom are the production of American farms and manufactories and after the expenses are paid and the dividends struck, almost the entire profits find their way to the States for permanent investment. But this is only the dollars and cents view of the matter."

A majority of the Senate Committee on Foreign Relations in 1884 reported against abrogating the treaty, and, in their conclusion, stated that "whatever objections have been found to the working or the results of this treaty are greatly overbalanced by the advantages we have acquired in a national sense; and by the benefits to our people of a profitable trade with the Hawaiian people, and by the duty we owe the people of both countries to give certainty and permanence to the gratifying prosperity which this treaty has created."

For detailed statements showing the operation of the treaty from a commercial standpoint, see the following:

Report of Committee on Foreign Relations, U. S. Senate, 1894, Vol. 1, page 103.

Planters' Monthly Vol. 1, p. 188, 245.

Planters' Monthly Vol. 2, p. 328-325.

Annexation.

Annexation to the United States. Annexation to the United States in 1898 has been the greatest single factor in the development of the sugar industry of Hawaii since the reciprocity treaty. The Sugar crop of 1897-1898, the last before annexation, amounted to 229,000 tons. By 1901 it had reached 360,000 tons, and for the present year, 1908, will be 520,000 tons.

The immediate effect of annexation was to establish confidence in the stability of Hawaiian government and a free protected market for sugar, both of which elements had theretofore been lacking.

As a result of this confidence there was a boom in establishing sugar plantations; Oahu, Puna, the Portuguese Mill, the Kona Sugar Company and Puako, being established on Hawaii; Kihel and Nahiku on Maui; Maunalei on Lanai; K-malo and American Sugar Company on Molokai; Honolulu and Wai'alua on Oahu, and McBryde on Kauai. Oahu plantation was started just before annexation. In addition to the above named new plantations, every plantation on the